Improving Accuracy Enhancing Student Engagement with Technology

L. Venkateswara Reddy and Dr A. Rama Mohan Reddy

Department of Computer Science and Engineering,
Rayalaseema University, Kurnool,
Andhra Pradesh, India.

Abstract
New and exciting applications of technology-enabled learning validate that it has the power to dramatically improve achievement, educational outcomes and retention. Yet the cost of technology, its rapid evolution, and the special knowledge and skills required of its users pose substantial barriers to contextualized learning. Even without educational technology, classrooms are in information overload putting students and instructors on the brink of drowning in data. Immediate innovations in, pedagogy, curriculum, and assessment must be coupled with the usage of instructional technology such as web-based learning, and online teaching and learning in order to produce improvements in the educational outcomes. Without substantial and extended professional development in the innovative models of teaching and learning that instructional technology makes affordable and sustainable, many instructors and students will not use these devices to their full potential.

1. INTRODUCTION
social interactions among its subjects, which are heavily influenced by the language and the culture of the people involved. The pedagogical advantages of collaborative learning have been extensively analyzed over the last ten years. Its benefits are focused mainly on active learning and on in-depth information processing. The teaching models of collaborative learning have been systematically investigated for some time. Those are Knowledge Building, Progressive Inquiry, Knowledge Integration, Knowledge Creation and Social Theory of CSCL. These teaching models succeed in combining theory with practice through different applications. Designing a collaborative environment based on socio-cultural theories is a very difficult task. This is due to the profound differences in how learning theories have
been applied previously. In spite of this, a huge shift in this direction is observed, as one can see in the large number of collaborative learning environments available. The rapid development of internet technologies enabled the transformation of uses and practices, giving them an educational and pedagogical dimension and it has eventually led to this radical change. In light of this theory, technology is a component for supporting cognitive activity, a fact which has radically changed the way we perceive the use of Information and Communication Technologies (ICT) in the educational process\(^9\). The main objective of research in collaborative learning is the focus in the great importance of collaboration between users as a way of processing ideas, conversation, justification and evidence. It is also very important to identify the reasons why collaborative tools, though numerous, are not yet fully exploited within formal teaching. Perhaps the in-depth exploration of traditional teaching, in relation to the globalization of knowledge and new technologies, should be continued\(^{10}\). Moreover, a proper approach of how to integrate and use technology in the classroom needs to be promoted. Culture and other special characteristics of nations complicate or facilitate the implementation and the assimilation of a collaborative environment, by setting new rules in each individual environment. We can, therefore, claim that since collaborative learning is based on knowledge sharing through group activities, there must be a common way of treatment of factors related to collaboration and to common language in order for CSCL to be effective. In addition, a general discussion on the ways that inspire participation and contribution of the members involved should be supported.

**Table 1:** Summary of Levels of Learning With Technologies.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Levels of Learning</th>
<th>Factors Related to Collaboration</th>
<th>Common Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacDonald, Akin, Jenkins, &amp; Kemmis (1977)</td>
<td>Recognition, Recall, Reconstructive understanding, Intuitive understanding, Constructive understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biggs and Collis (1982)</td>
<td>Prestructural, Unistructural, Multistructural, Relational level, Extended abstract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anderson and Krathwohl (2001)</td>
<td>Remember, Understand, Apply, Analyze, Evaluate, Create</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pezo and Postigo (2000)</td>
<td>Acquisition, Interpretation, Analysis, Understanding and organization, Communication or reconstruct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starkey (2011)</td>
<td>Doing, Thinking about connections, Thinking about concepts, Critiquing and evaluating, Creating knowledge, Sharing knowledge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. METHODOLOGY

The proposed methodology consists following phases

Phase 1: Registration: In this phase the admin trainer and users are going to be registered

Admin is the main controller of total system. Trainers are used for conducting exams for students. Students should registers their names.

Phase 2: Batch Division

In this phase we are going to divide the students into batches. There will be separate date for each batch. Batch consists 60 students.

Phase 3: Online test

Here we are going to provide a online exam for different batches with 50 questions and each question contain 1 mark. For this student and trainers should login with their credentials.
Fig 1: Exam interface

As shown in fig1. It is example of java exam. Here question will be appeared and test is purely multiple choice questions. Here we are providing 5 options as a,b,c,d,e. we are providing buttons as next unanswered, next, previous, clear answer, mark.

Phase 4: results

Fig 2: results
After successful completion of exam student should click the mark button then the marks window will be appeared. It will be as shown in fig2.

Phase 5: analysis

In this we are going to analysis the test result with the j48 classifier. We will analyze the performance of student in terms of accuracy.

3. IMPLEMENTATION

The mission of the work is to focus on the student and instructor as a lifelong learner by providing mentoring, tools, resources, and facilities that enrich and support the integration of instructional technology into the curriculum. The Technology Learning Center is a multi-function resource and instructional support center for students and faculty providing instructional technology support. The Center hosts workshops and training designed to bring together faculty and other professionals to share expertise, explore innovations, and discuss the challenges of the integration of instructional technology.

We have used following trainers and students in our experiment.

<table>
<thead>
<tr>
<th>user_name</th>
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<td>cris</td>
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<td>12/3/2008</td>
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<td>garden</td>
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<tr>
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<td>JSP007</td>
<td>12/5/2006</td>
<td>5/13/2006</td>
<td>Satish</td>
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4. RESULTS

In the first year alone student evaluation of instruction has improved by 11% showing instructors are making use of digital materials and instructional tools. Seventy-eight percent of online classes have a retention rate of 80% or higher with seven percent having a 100% rate. As a result of the technology training offered in the TLC faculty and students have a much stronger foundation in technology based learning. This should lead to more instructionally sound course materials, lectures, and computer-based instruction in the future. Learners both now and in the future will benefit from the resources provided by the Technology Learning Center.

![Accuracy graph](image)

**Fig3**: Accuracy graph

The participants will recognize where and when instructional technologies will be a more effective instructional solution improving student achievement and learning assessment. The non-traditional student is characteristically dedicated when given the
opportunity to learn by doing, to engage in collaborative construction of knowledge, and to experience mentoring relationships. The blended learning environment along with the assistance from the technology learning center has allowed more students to see a degree as something attainable. The technology learning center director is available to provide feedback support because no participant can become an expert after one visit to the center. Expertise comes with continual learning through the persistence of being a life-long learner.

5. CONCLUSION

Working with big data using data mining and analytics is rapidly becoming common in the commercial sector. Tools and techniques once confined to research laboratories are being adopted by forward-looking industries, most notably those serving end users through online systems. Higher education institutions are applying learning analytics to improve the services they provide and to improve visible and measurable targets such as grades and retention. This paper discusses new method to improve in accuracy of learning in automatic teaching learning system.

REFERENCES


Authors:

1. L. Venkateswara Reddy
   Professor
   Information Technology
   Sree Vidyanikethan Engineering College
   Tirupati-517501

2. Dr. A. Rama Mohan Reddy
   Professor
   Department of CSE
   SVU College of Engineering
   SV University
   Tirupati-517501.